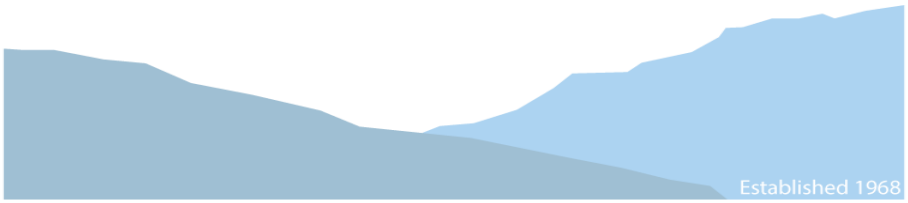
# CRACKLIN' STATIC




SIERRA NEVADA
Amateur Radio Society

Serving the Amateur Radio Community since April 16, 1968
http://www.snars.org

**RENO, NEVADA** **OCTOBER 2016**

## PRESIDENT'S VOICE

September SNARS was a little busy with attend a couple of events. We had our SNARS Booth at the Reno Air Races where we had a great amount of interest about the club, visitors asking about systems in the area and a great time trying to make contacts on HF Radio. The other big event of course is our annual Fall Reno Hamswap which was again successful for SNARS. You will find a summary report in the newsletter of how we did financially. Thank you to everyone who helped to staff the SNARS Booth.

As we look into October we again will have a booth at the annual Pacificon in San Ramon. The event will be held October 14-16, 2016. If you are planning to attend be sure to drop by our booth and or if you would like to work an hour or two please let us know. We always try to have a presence at this great event as we are part of the Pacific Division of the ARRL.

This month at our breakfast meeting we will have a special presentation for those who are looking to get into HF Radio. HF Radio 101 will be presented by the SNARS HF Team. This is a great opportunity to ask questions about HF radio.

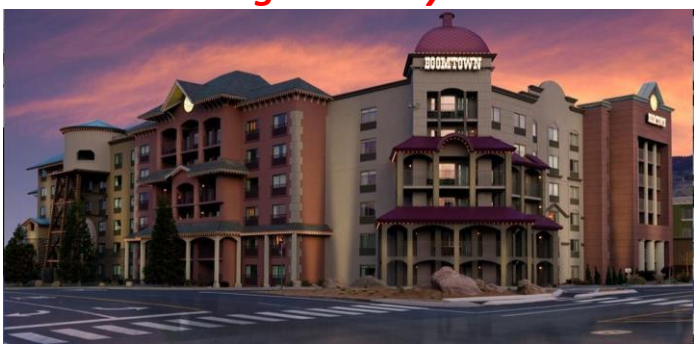
Lastly we have had two planning meetings for the Reno Tahoe Hamfest 2017. We will be working over the next few months to develop the schedule and to of course solicit vendors and sponsors for the event. We have already received a great room rate from Boomtown starting at 49.99 on Thursday Night and 69.9 for Friday and Saturday Nights. A big thank you to Sharon at Boomtown for getting us this great rate and for always being there for our Club and now this event. If you would like to be a part of this great event please contact myself at w7xm@snars.org and we will find a spot for you.

Oh and remember we are still accepting nominations for those interested in the three positions on the Board of Directors.

Hope to see everyone on Saturday!

73,
Tony, W7XM

# *SNARS meeting Saturday October 1*




**7:30 AM Boomtown Casino Hotel, I-80 exit 4, Verdi NV, in the Banquet/Conference Center.**

**HF 101, a new series of special classes by SNARS premiered by Steve Johnson, KS6A. See page 5……**

**SNARS, P.O. Box 7727, Reno, NV 89510**

Membership: $40 Individual, $50 Family

**OFFICERS 2015**

President……Tony Marcin……W7XM
Vice President…… Jim Shepherd……W6US
Trea$urer……Bill Jones……AE7OX
Secretary……Rob Dunbar……NB6C
Director……Steve Johnson……KS6A
Director……John Byerly……N7ROJ
Director……Barry Bettman……K6ST

**STAFF 2016**

By Laws Review Committee……vacant
Club Public Information Officer……vacant
Control Operators Manager……W7DED
Cracklin' Static Editor……WB2AWQ
Meeting Greeters……AE7OX
History Archivist……KF7KTC
Station Licensee for KR7ENO……WB2AWQ
Control Operators FOR KR7ENO……WB2AWQ
Station Licensee for W7TA……KE7VSR
Tech Committee Chair……N7ROJ
Chief VE Examiner……NN7K
Membership Chairman……N2MOO
Program Chairman……vacant
Web Master ……W7XM
Facebook Page Administrator……W7XM
Events (ARES) Coordinator……WA6MTY
Education Team Chair……W7XM
Reno Ham Swap……NB6C
Field Day Co-chair……KS6A
Field Day Co-chair……W6US
Audit……vacant
Noon Net……KG7QXE

**CRACKLIN' STATIC PUBLICATION**

E-mail…… **holden7471@msn.com**

**Cracklin' Static** is the Newsletter of, and sponsored by the **S**ierra **N**evada **A**mateur **R**adio **S**ociety. Opinions expressed herein are those of the editors and contributors and should not be considered as official expressions of the Club Officers, Staff or Club Members, or as endorsements by same.

**Material** for publication may be edited to enhance readability or to save space. We reserve the right to use whatever font size or line spacing may be required in order to publish this Newsletter.

**Deadline** for input to the newsletter is 1500 hours on the Sunday prior to the 1st Saturday of each month.

**Cracklin' Static** is e-published in Adobe PDF Format. It may be enjoyed at the SNARS web site.

## Amateur Radio License Testing 2016

**SNARS**, Third Saturday of February, April, June, August, October and December. Testing will be at the REOC located at 5195 Spectrum Blvd., be there at 9 AM sharp! …… Bill Nichols… NN7K

**SIERA CLUB:** Silver State Charter High School, 788 Fairview Dr, Carson City…… 3rd Saturday of January, March, May, July, September, and November

……Dale Anderson, kv7s@charter.net

**Elko Area:** Third Saturday of January, April, July, October. 11:00AM, Northeast Nevada Regional Hospital, 2001 Errecart Boulevard, Elko, NV w7gk_1@yahoo.com

## *SNARS Repeater System Frequencies*

**I-80-Mt Rose Linked System (W7TA)**
Reno, Sparks, Carson City (Ophir Peak) 443.075 + 123.0 Normal Operation
Lovelock, Black Rock Desert (Toulon Peak) 146.925 - 123.0 Normal Operation
Winnemucca 146.670 - 123.0 Normal Operation
Reno, Sparks (Virginia Peak) 147.030 + 123.0 Normal Operation
Carson City, Tahoe, Truckee (Mt Rose Knob) 147.150 + 123.0 Normal Op
Reno, Sparks, North Valleys (Peavine Peak) 147.210 + 100.0 Normal Operation
Yerington, Wellington (Lobdelle Peak) 444.875 + 100.0 Normal Operation

**IRLP/EchoLink System (W7TA)**
Reno, Sparks (GSR) 147.300 + 123.0 Connected to/Status:

**Standalone Systems, Ragchew Repeaters (W7TA)**
Reno, Sparks 52.580 - 114.8 Normal Operation
Reno, Sparks, Carson City, Dayton (Ophir Peak) 147.390 + 100.0 Normal Op
Reno, Sparks 927.1125 - 114.8 Normal Operation
Reno, Sparks, Carson City (Ophir Peak) 146.610 - 123.0 Not Linked, off air

**Digital/APRS Systems (W7TA)**
Reno, Sparks, Carson City (Ophir Peak) 145.050 - RNO Normal Operation
Carson City, Tahoe, Truckee (Mt Rose Knob) 145.050 - ROSE Normal Op
Lovelock, Black Rock Desert (Lobdelle peak) 144.390 - TOULON Normal Op

**Portable Repeaters (KR7ENO)**
Portable System 147.000 - 123.0 Special events only

**DMR Digital Mobile Radio**
Reno-Sparks 444.925 + CC1 DMR System
Reno, Carson, Dayton 444.825 + CC1
Lake Tahoe, Truckee 443.925 + CC1

**C4FM Digital Repeater – YAESU OFF THE AIR**

**D-Star (N7NDS) NARRI**
Reno-Sparks-Carson (Mt Davidson) 444.625 + (Module B)
Reno-Sparks-Carson (Mt Davidson) 145.175 - (Module C)

# The Name of the Game

Jim Shepherd, W6US nvjims@gmail.com

**Incident Command System and Planned Events – Part 2**

In the first part of this article, we discussed the roles of each of the Sections in the planning and execution of a planned event like Field Day or a major hamfest. In each Section there are divisions of work either by function or by geography and to maintain an effective span of control.

The Logistics Section is a good place to start as a lot of different functions occur under the overall control of the Logs Chief (LSC).

Near and dear to everyone's stomach, is the Food Unit, lead by the Food Unit Leader (FDUL). The FDUL will plan meals, develop shopping lists, acquire cooking facilities, supervise cooks, enforce food safety regulations, and generally be in control of these activities. In the case of a hamfest, they would be the primary point of contact with catering personnel. They would also coordinate with the Facilities Unit Leader (FACL) for seating and kitchen facilities, and with the Base Camp Manager (BCMG) for trash service. The meal plans and shopping lists would be approved by the LSC and the shopping list would go to the Ordering Manager (ORDM) or the Supply Unit Leader (SPUL).

The Supply Unit Leader will be responsible for control of the club property, and through the ORDM and Receiving/Distributing Manager (RCDM) would acquire, document, and see to it that these items get to the right person. They would be helped by the FDUL when they shop for the food.

The Facilities Unit Leader will be responsible for the physical location of the event. The FACL will be involved with the negotiations for the use of the facility and see that any contract stipulations are carried out. They will also be the point of contact with the facility owner. With their BCMG, they will help set up the areas for use and see that they are cleaned up afterwards. The FACL will coordinate with the BCMG, SPUL and ORDM to see that the appropriate number and type of 'sanitary facilities' are provided and maintained.

The Communications Unit Leader (COML) is responsible for the communications needed to facilitate the operation of the event. The 'Talk-In' radio, communications with those assigned to go get items or supplies, and other comms for the good of the operation are the duties of this position. They are not limited to ham radio, but should also be the telephone point of contact for the incident. The COML needs to maintain a phone list of all key personnel on the event to be able to pass messages.

The Medical Unit Leader (MEDL) should be at least trained in CPR and First Aid. They will be the keeper of the first aid kit and may dispense sun screen and bug repellant. They will need to develop a Medical Plan that contains information on local hospitals, ambulance and rescue providers, the exact location of the event, and any other information needed to handle a medical incident.

The Ground Support Unit Leader (GSUL) is responsible for the transportation of club equipment, fueling of the generators, and the management of traffic and parking areas. The GSUL will also have a Security Manager (SECM) who will be responsible for the security of the operation and coordination with the facility owner's security operation.

The Planning Section makes sure that the right resources are available at the right time and place, and is properly documented. The Planning Section Chief (PSC) heads up this operation. They are also responsible to produce an Incident Action Plan (IAP).

The Resource Unit Leader (RESL) keeps track of what and where resources are available. A Status Check-In Recorder (SCKN) would handle the check-in desk so we know who is on site. They would also have the assignment lists and would know who we need to go get or replace. They will track other qualifications to be able to reassign resources.

The Documentation Unit Leader (DOCL) will need to collect all the lists, plans, and especially all the logs for processing for submission to the contest sponsors. They will maintain a file of all this to help with the planning of future events.

The Incident Technology Support Specialist (ITSS) will setup and maintain any computer systems needed for the operation of the event. They will also backup any logs and assist with the post processing of them for submission to the contest sponsors and our license trustee.

The Demobilization Unit Leader (DMOB) sees to it that everybody and everything gets home. This can be a great

help when someone has to leave early but is leaving some equipment. They can leave the information with the DMOB and that will allow for planning to return it.

Next installment of this article will look at the Operations and Finance/Administration sections along with the General Staff positions. While this seems like a lot of positions, not all are activated, and a single person may be able to "change hats" and do several positions.

I am currently looking for someone to fill the LSC, PSC and OSC positions for next year's Field Day. It is time to get started. If you are interested, please contact me.

.

## MIKE'S MISSIVES CHAPTER NINETEEN

### Part 97 -- Prohibited transmissions

97.113 (Contributor's part one of two)

(a) No amateur station shall transmit:

(1) Communications specifically prohibited elsewhere in this part;

(2) Communications for hire or for material compensation, direct or indirect, paid or promised, except as otherwise provided in these rules;

(3) Communications in which the station licensee or control operator has a pecuniary interest, including communications on behalf of an employer. Amateur operators may, however, notify other amateur operators of the availability for sale or trade of apparatus normally used in an amateur station, provided that such activity is not conducted on a regular basis;

(4) Music using a phone emission except as specifically provide elsewhere in this section; communications intended to facilitate a criminal act; messages encoded for the purpose of obscuring their meaning, except as otherwise provided herein; obscene or indecent words or language; or false or deceptive messages, signals or identification.

(5) Communications, on a regular basis, which could be reasonably furnished alternatively through other radio services.

## UPCOMING Monthly Meeting Topics - 2016

**October** **HF 101 - Intro into HF Radio** **Presented bySteve Johnson KS6A.**

**November** **Skywarn/Winter Weather Refresher /Update**

**Chris Smallcomb, Reno Forecast Office, National Weather Service.**

**December** **Christmas Breakfast, Elections, Radio Raffle**

## Monthly Breakfast Meetings Sponsored by

Ham&HiFi

BOOMTOWN CASINO ★ HOTEL RENO, NV

## Weekly nets on the SNARS repeater systems

**SNARS Noon net (daily, 12:00 PM, see below)**
147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0

**The Morning Net (Monday – Friday at 10:00 AM)**
147.300 + 123.0

**Bishops Storehouse Net (Monday nights at 9:15 PM)**
147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0

**North Western Nevada ARES Net (Tuesday nights at 7:00 PM)**
147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0

**State SATERN Net (Tuesday nights at 8:00 PM)**
147.300 + 123.0
**State SKYWARN Net (Wednesday nights at 7:00 PM)**
147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0

**Northern Nevada Preppers Group Net (Wednesday nights at 8:00 PM)**
147.150 + 123.0, 147.210 + 100.0, 147.030 + 123.0, 444.875 + 100.0
**State ARES Net (Thursday nights at 7:00 PM)**
147.300 + 123.0

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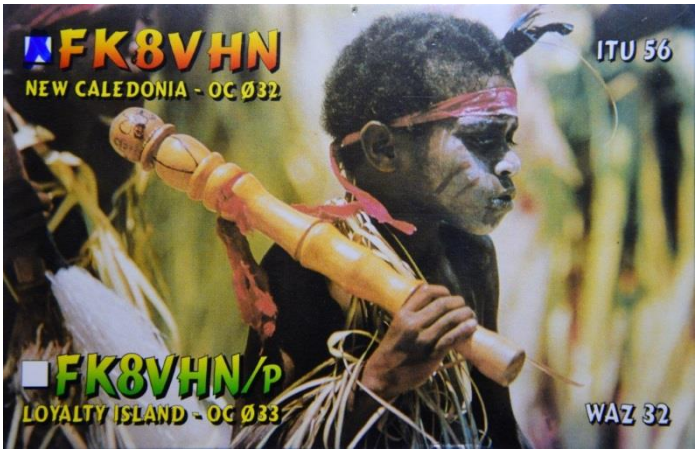
# AN INTRODUCTION TO HF RADIO

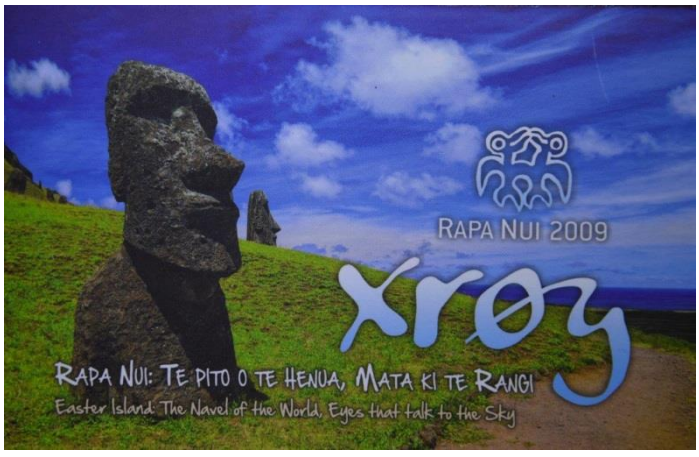
**Exploring Full Spectrum Radio**

***Mark the morning of October 1st on your calendar*** for the SNARS general membership meeting at Boomtown, Nevada. This meeting will feature a presentation on high frequency ham radio communications.

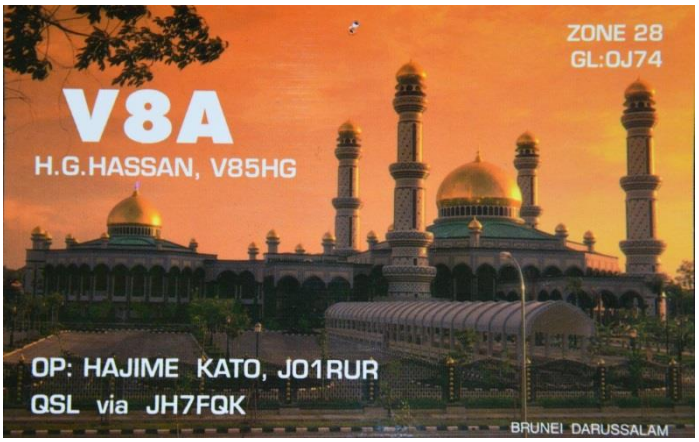
This will be the first in a series of SNARS classes devoted to exploring HF equipment and station set-up, antennas, modes of operation, contesting, Dxpeditions, Islands on the Air, DX Century Club, QRP operation, Summits on the Air, Digital HF modes and many more HF related subjects.



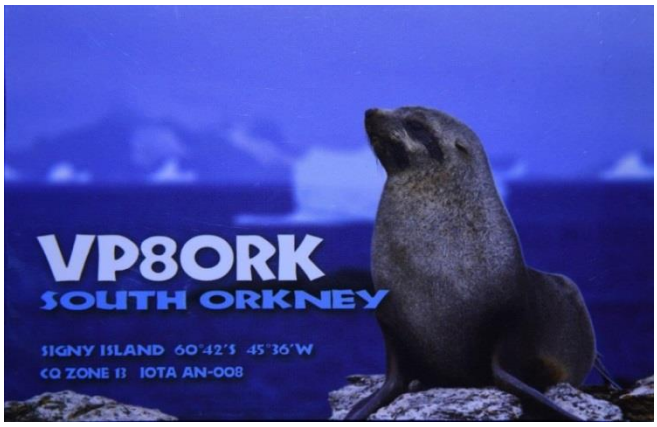

Newer ham radio operators entering the field of play today do so for a variety of reasons including an interest in emergency communications, race communications, preparing for disasters, 4-WD communications, social fellowship, weather spotting, interfacing with other hams on the internet, microwave exploration and a wide range of other VHF and UHF interests. Readily available 2 meter and 440 mHz transceivers, coupled with linked repeaters and computers with internet connectivity, create a communications platform that allows a ham with a technician license to communicate world-wide, even without using his radio. But these frequencies come with limitations. The basic 5 watt handheld transceiver or 100 watt VHF-UHF rig, absent repeaters and internet connectivity, is limited to a few miles or tens of miles range. Use of a repeater either through a linked over the air system or through the internet is limited to a very few vhf or uhf frequencies locally. While this meets the interests and needs of many hams, there is a literal world of radio communications available to the radio amateur who is willing to explore a little further into the field of electro-magnetic radiation.




That world lives on the HF bands 160 Meters through 10 meters.




Worldwide communications on these bands are highly variable and change with the time of day, the time of the year, the frequency used, the mode used and the sunspot cycle. Learning to build an effective HF station and use that station well is an art that this series of seminars will explore. We invite all hams who are looking to expand their horizons and talk around the world, station to station, with no repeaters or internet between you and your contact to come to this introductory HF seminar at the next SNARS general membership meeting.




73, Steve Johnson KS6A

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## THE SNARS NOON NET

The Noon Net is on 147.030 +and 147.150,+, PL 123.0, and 147.210 + and 444.875+, PL 100.0 . The net is held weekly at 1200, Sunday afternoon. This is a Q&A and information net for newly licensed hams and all hams wishing to ask question about different aspects of Ham Radio. It will give new hams in particular a venue for getting on the air in a controlled net moderated by a ham with experience. The net is open to all hams. Questions will be answered and discussed by the more experienced hams on the Net.

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# We Need Net Control Operators

Where do I begin? I got started in September of 2015 as an Alternate NCO. I was asked to be a regular Net operator by Steve Johnson - KS6A, the current Net Manager at the time, but could not because of prior commitments. After my commitment was completed, I was waiting to be called for NCO duty.

Well, it finally happened a couple weeks later. A new Net Control Operator, Dody Bracken - KG6UVX, called me up on my LL and asked if I could do the Net that day as she would not make it home in time as she was 20 minutes out. I told her "okay", I'll do it, but it may be a little rough". Well, I got my copy of the preamble and at 12:10pm local time, I started the net. It was a lot of fun. I was excited and nervous as hell. I got a lot of in and out's mostly. Finally I got to the point that there we no more check-ins and closed the Net, leaned back in my chair and took a deep breath with a sigh of relief. I was able to take the Wednesday position, and I am still doing Wednesday.

If you have not realized, I am the Sierra Nevada Amateur Radio Society Noon Net Manager, Wes Vick - KG7QXE, and I am looking for a few good Net Control Operators.

I have been an NCO for a year now. We still have problems getting people to become an NCO. They have the usual excuses. I'm too busy, I can't commit to a specific day and so on and so forth - I've heard it all before.

When you become an NCO you start practicing some great communication skills. You get very smooth with talking to other Hams and listening for weak signals on the fringe of a distant repeater. This is very useful for ARES, RACES and SKYWARN Nets and Operations. To give an example of how you will improve, let's take Dody - KG6UVX. When she

started she was a diamond in the rough. People had some criticisms about her communication skills. But she hung in there and despite the criticism, she became a highly skilled and valued NCO. I am glad to have her on the SNARS NCO Team.

Most of the team are highly skilled operators in their own right. We have Jim Seymour - KC7NXP who has been an NCO for ten years, and he never missed an appointed Net. Then we have Barry Bettman - K6ST who has operated many nets over his time as Amateur Radio Operator, and still does. These NCO's are as dedicated as they come. The question is can YOU be as dedicated as we are and become an NCO on the SNARS Noon Net? By the way, the SNARS Noon Net does not have the rigidity as an ARES, RACES Net.

We are an INFORMAL news and information net, so if you think you have 20 - 40 minutes once or twice a month on a weekend, and want to learn some skills that you can use, then send me an email at KG7QXE@snars.net. If that does not work, send it to wbvick@charter.net.

I hope to hear from you. It is a fun experience. 73 Wes - KG7QXE

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## NAME THAT RIG

(Answer on page 8)

## WELCOME NEW SNARS MEMBERS!

| NEW MEMBERS FOR SEPTEMBER 2016 | | |
|---|---|---|
| Gregory | Ford | N7SAX |
| Raymond | Peterson | KI7GTO |
| Patricia | Strong | KI7GVU |
| Ignacio | Chamorro | KI7GZC |
| Gregory | Krantz | NF6C |
| John | Dunn | K7UAS |

**302 total active members**

## SNARS CALENDAR

**SNARS monthly meeting (breakfast!)**
**Saturday, October 1st, 8:00 AM**
**Boomtown Casino Hotel, I-80 exit 4, Verdi NV**

**Technical Committee Meeting - SNARS**
**Wednesday, Oct 12th, 2016 6:00 PM - 7:00 PM PDT**
**Washoe County Regional Emergency Operations Center, 5195 Spectrum Blvd Reno, Nevada 89512**

**VE Exams – SNARS**
**Saturday, Oct 15th, 9:00 AM SHARP! Must be here 9 AM!**
**Washoe County Regional Emergency Operations Center, 5195 Spectrum Blvd Reno, Nevada 89512**
**See http://snars.org/classes/ for details**

**Board of Director's Meeting - SNARS**
**Wednesday, Oct 19th, 2016 6:00 PM - 7:00 PM**
**Washoe County Regional Emergency Operations Center, 5195 Spectrum Blvd Reno, Nevada 89512**

## FUN STUFF FOR OCTOBER

**Looking for some excitement on the bands during the fall? There's something for everyone on the air!**

**15 Oct 0001Z to 16 Oct 2359Z 28Mhz 10-10 International Fall Contest, CW www.ten-ten.org**

**17 Oct 1300Z to 21 Oct 2359Z All ARRL School Club Roundup CW Ph www.arrl.org/school-club-roundup**

**22 Oct 0000Z to 23 Oct 2359Z 50-1296Mhz ARRL EME Contest CW Ph Dig www.arrl.org/eme-contest-1**

**29 Oct 0000Z to 30 Oct 2359Z 1.8-28Mhz CQ Worldwide DX Contest, SSB Ph www.cqww.com/rules.htm**

**For a full list of contests, see:**
**http://www.arrl.org/files/file/Contest%20Corral/2016/October_2016_CORRAL.pdf**

**If you're not into contests, there's always DX to chase! Some of the many better DX operations coming up in October:**

**Oct 01 to Oct 02 Lord Howe I VK9L**
**Oct 02 to Oct 12 Maldives 8Q7MD**
**Oct 04 to Oct 09 Malta 9H3LH**
**Oct 04 to Oct 10 Tuvalu T2J**
**Oct 04 to Oct 17 Temotu H40GC**
**Oct 04 to Oct 30 Central Kiribati T31T**
**Oct 08 to Oct 23 Sao Tome & Principe S9YY**
**Oct 14 to Oct 17 Easter I CE0Y**
**Oct 15 to Oct 30 Nepal 9N**
**Oct 15 to Oct 29 Lesotho 7P8AO**
**Oct 17 to Nov 01 Micronesia V6Z**
**Oct 18 to Oct 21 Solomon Is H44GC**
**Oct 18 to Oct 30 St Helena ZD7VDE**
**Oct 19 to Oct 26 Ghana 9G5AM**
**Oct 20 to Oct 28 Vietnam 3W2R**
**Oct 20 to Nov 05 Vietnam 3W2DK**
**Oct 20 to Nov 12 Tanzania 5H3DX**
**Oct 25 to Nov 26 Solomon Is H44COW**
**Oct 26 to Nov 09 Chatham I ZL7G**

**Visit http://www.ng3k.com/Misc/adxo.html for current info and full lists!**

## California QSO Party

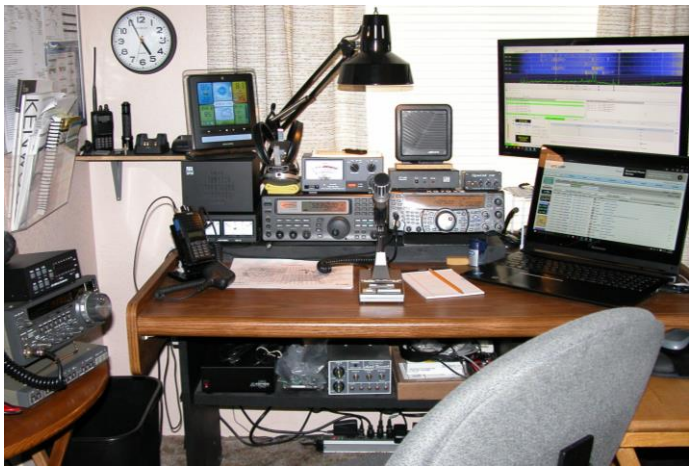
The CQP starts at 0900 Saturday morning right after our club breakfast and runs to 1500 on Sunday. From here in Nevada, the object is to work as many California counties and stations as possible. There are 58 counties in California and these will be multipliers. For an exchange you would give your call, serial number, and NV for Nevada. If you are operating from a location in California, you would want to work all the other states and Canadian provinces for multipliers and you would give your call, serial number and 4 digit county abbreviation for the exchange. More complete information can be had at http://www.cqp.org/. Be sure to list "Sierra Nevada ARS" as your club affiliation in your log! 73, Jim W6US

## NAME THAT RIG **(from pg 7)**

The Barker and Williamson Model 6100 was introduced in 1962. A total of only some 300 were built. This was the first and only frequency synthesized Ham *Transmitter*. 80-10 Meters, with direct frequency control...no VFO needed! AM, CW, and SSB..180 Watts. Extra Wide Coverage for MARS and more. Dial up the exact frequency and no zero beat. It was a unique Ham transmitter with none like it before or since. Still in business today, B & W only manufactures antennas, coils and other accessories for Amateur, military and commercial use.

## SNARS MEMBER STATIONS

Wes Vick KG7QXE sent me these great photos of his shack. Wes describes his setup, first photo: **Station Description below from Right To Left: Main Base Radio - Kenwood TS-2000 set up for Digital Modes plus 6m, 2m & 70cm hooked to a G5RV Jr. and a Comet GP-15 Antenna. ICOM 8500 Receiver to monitor other band for activity. It's hooked up to AOR - SA-7000 Antenna. DMR CS750 HT Hooked to a UHF Ground Plane Antenna.**



**Extreme Left** (top photo, and below) **is my favorite Radio a 40 year old Yaesu Ft 707 I bought NEW and kept it. And It Works GREAT! I use it for most of my SSB Phone Work " It has one hell of a receiver "**

# Fall 2016 Reno Ham Swap

After Event Report

Event Began at 6:00 AM, Finished at 10:00 AM.

**REPORT:** The swap was held at Boomtown in the west parking lot and had a large turnout of sellers. The swap areas wrapped around the parking lot from the tunnel entrance to the parking lot entrance.

**LOCATION:** Boomtown Hotel Casino.

**WEATHER:** Clear Skies, Warm lower 50's to mid 70's.

**Ham Swap Spaces**

| | |
|---|---|
| Spaces Sold | 25 (9 online, 16 Day of) |
| Ham Swappers | 22 |
| Total Income | $245.00 |

**Raffle Tickets**

| | |
|---|---|
| Sold | 282 Tickets |
| Total Income | $242.00 |

**Expenses**

| | | |
|---|---|---|
| FT 60R -Raffle Prize | $149.95 | (HRO) |
| MD380 DMR Radio | $99.00 | (ebay) |
| Total Expenses | $248.95 | |

**VE Exams Passed**

| | |
|---|---|
| Technicians | 1 |
| General Upgrade | 0 |
| Extra Upgrade | 0 |

| | |
|---|---|
| Total Ham Swap Income | $487.00 |
| Total Ham Swap Expenses | $248.95 |

**Total Ham Swap Difference $238.05**

**Other Income**

| | |
|---|---|
| Club Ham Swap Table | $870.00 |
| Club Logo Items | $10.00 |
| SNARS Membership | $160.00 |
| ARRL Membership | $49.00 |
| **OTHER TOTAL** | **$1,089.00** |

**Days Total $1,327.05**

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## BUXCOMM

### VSWR readings related to RF Power Loss in Watts.

*The table shown below illustrates the SWR readings vs RF loss relationship for a transmitter power output of 100 watts.*

| SWR Reading | % OF LOSS | ERP* | Power Output in Watts | Power Loss in Watts |
|---|---|---|---|---|
| 1.0:1 | 0.0% | 100.0% | 100.00 | 0.0 |
| 1.1:1 | 0.2% | 99.8% | 99.8 | 0.2 |
| 1.2:1 | 0.8% | 99.2% | 99.2 | 0.8 |
| 1.3:1 | 1.7% | 98.3% | 98.3 | 1.7 |
| 1.4:1 | 2.8% | 97.2% | 97.2 | 2.8 |
| 1.5:1 | 4.0% | 96.0% | 96 | 4.0 |
| 1.6:1 | 5.3% | 94.7% | 94.7 | 5.3 |
| 1.7:1 | 6.7% | 93.3% | 93.3 | 6.7 |

| SWR Reading | % OF LOSS | ERP* | Power Output in Watts | Power Loss in Watts |
|---|---|---|---|---|
| 1.8:1 | 8.2% | 91.8% | 91.8 | 8.2 |
| 2.0:1 | 11.1% | 88.9% | 88.9 | 11.1 |
| 2.2:1 | 14.1% | 85.9% | 85.9 | 14.1 |
| 2.4:1 | 17.0% | 83.0% | 83 | 17.0 |
| 2.6:1 | 19.8% | 80.2% | 80.2 | 19.8 |
| 3.0:1 | 25.0% | 75.0% | 75 | 25 |
| 4.0:1 | 36.0% | 64.0% | 64 | 36 |
| 5.0:1 | 44.4% | 55.6% | 55.6 | 44.4 |
| 6.0:1 | 51.0% | 49.0% | 49 | 51 |
| 7.0:1 | 56.3% | 43.8% | 43.8 | 56.3 |
| 8.0:1 | 60.5% | 39.5% | 39.5 | 60.5 |
| 9.0:1 | 64.0% | 36.0% | 36 | 64 |
| 10.0:1 | 66.9% | 33.1% | 33.1 | 66.9 |

** ERP = Effective Radiated Power.*

To compute your useful output power into the antenna, read your output power, and multiply it by the ERP percentage in the above chart, using your SWR reading.

**Example:**
If you are operating PSK31 or similar digital mode and you know your transceiver puts out 50 watts, and the VSWR is 1.5. Reference the above chart for a 1.5:1 reading, *read* the radiating efficiency, 96.0 percent. Simply multiply 50 watts by .960 (96% converted to decimal). The result is 48.0 watts.

VISIT: http://www.WindomAntennas.com and http://www.BUXCOMM.com

73 de BucK4ABT © 1998 > 2013

(**EDITOR'S NOTE**: You must also add the matched line loss for the particular cable and length you are using to the SWR mismatch loss to establish actual power fed to the antenna. **This chart was contributed by Mike Katz N7MSK.)**

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# ARES NEWS

**RENO AIR RACES** September 11-18,

We helped with security at the Air Races this year. KF7KEM coordinated with the security director where we were stationed at different areas to verify the attendee had the correct credentials to enter that area on the air race property. The security director requested that we provide 240 hours of volunteer time but thanks to KE6GIW; KF7BNX; KG7SNE; AF6MN; WB6JAD; N6AFV; KE7NCJ; KF7NJL; KE7OIF; KG7ZHB; KG7ZHD; AG7RV; KI6TRK; KD7BAC; KE6BZY; WA6MTY; and KF7KEM we were able to provide over 450 hours.

Everyone was asked to work 15 hours in order to earn full access to the Air Race but extra thanks goes to KEN KF7BNX, TOM KE7NCJ, SMITTY KD7BAC, for working 40 hours to help out and Rick KF7KEM and Bob WA6MTY for working 60 hours coordinating the event.

**EDIBLE PEDAL**

Again this year we helped the Sunrise Rotary Club with their bike ride Edible Pedal. We were successful ensuring all the bicyclist's returned to the Start/Finish line at Bowers Mansion where all enjoyed a wonderful put on by BJs Bar-B-Que

Thanks to the following Hams, KF7BNX; AF6MN; WA6MTY; KE6GIW; KF7KEM; K7VWB; KE7NCJ; KG7VXW; KE7QHN; KF7BNK; AJ7E; K7HMR; KE6BZY; KB7GNA; AE7I; KG7DQG, KD7NHC, KE7JIV, KB1BEX, KE7JIS,

This year we installed APRS transmitters in each Support and Gear (SAG) vehicles so we could track their location while getting them in touch with riders that needed help.

**SKYWARN RECOGNITION DAY**

SKYWARN volunteers typically set up radio operations at their local NWS Forecast Office and hams around the world are encouraged to try and contact as many of these stations as possible. SRD is traditionally held on the first Saturday in December. This year's event will run from 00:00 to 24:00 **UTC** on December 2nd and 3rd.

1. Modes of operation: HF- VHF- 2 meters and simplex -IRLP -EchoLink-DMR-D-Star
2. Radios and equipment will be provided. Only authorized radios will be eligible to operate
3. Antennas to be erected November 25th TBA
4. Operators will be asked to commit to four hours shifts. Sign up sheets will be on the Internet
5. SNARS will graciously donate refreshments for the radio operators.

Bob WA6MTY, Washoe County Emergency Coordinator wa6mty@gbis.com

**Expanded full calendar of ARES events requiring communications, including contact info**

| EVENT 2016 | DATE | DATE END | SPONSOR/ORGANIZER | COORDINATOR | CONTACT |
|---|---|---|---|---|---|
| Tour De Tahoe | 9/11/16 | | Tahoe Amateur Radio Assn | Paul McCaffee | paul.mcafee@att.net |
| Reno Air-Races | 9/14/16 | 9/18/16 | WC-ARES | Rick Russell KF7KEM | wa6mty@gbis.com |
| Edible Pedal 100 | 9/18/16 | | Sunrise Rotary Club | Bob Miller WA6MTY | wa6mty@gbis.com |

Bob Miller WA6MTY
Amateur Radio Emergency Service Emergency Coordinator
775 843-5952 www.wcares.us


**FEATURED PRODUCT**

**This package is an unbeatable deal! Here are some features:**

- **Vertical antenna (80-2 meters)**
- **150 watt PEP capacity**
- **25' counterpoise w/ winder**
- **Jaw-mount bracket (for horizontal or vertical mounting)**
- **PL-259 connector**

**SNARS PRICE: $89.95**

**REGULAR PRICE: ~~$99.95~~**

**ABOUT US...**

**We carry a variety of new products such as antennas, mag mounts, switches, coax cable, connectors, and more.**

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PACIFICON 16 MDARC
SAN RAMON CA
AMATEUR RADIO CONVENTION

# PACIFICON 2016

**ARRL Pacific Division Ham Radio Convention**

**October 14-16, 2016 ▪ San Ramon Marriott ▪ San Ramon, California**

## — PACIFICON 2016 —
## The West Coast Amateur Radio Convention

PACIFICON gives you three great days of activities for one low cost: A full slate of outstanding Forum presentations about a wide range of amateur radio topics, a large Vendor Expo filled with exciting products and exhibits, an outdoor Swap Meet, great QRP activities, a Youth Forum and great Youth Activities including electronics kit building and soldering classes, 2-One Day License Prep Classes to prepare you to pass the amateur radio Technician license examination and get your first amateur radio license, or upgrade to your General License, a chance to hear about and discuss important national amateur radio issues with top ARRL leaders, a chance to win radios and other great prizes throughout the convention, and perhaps the best part - a chance to interact and share information with lots of other amateur radio enthusiasts to further (or begin) your own knowledge and to advance the hobby. Special Events Station W1AW/6 will operate from 8:00 AM Friday until 12 noon on Sunday.

**For ticket information and purchase go to www.pacificon.org**

PACIFICON has negotiated an outstanding room rate of only $129 per night for conference attendees.There are a limited number of rooms available at this rate, and the rate is guaranteed only until September 9th, 2016, so make your reservations soon.

**Go to: www.pacificon.org and click the Registration Tab, select Hotel Reservations and follow hotel reservation link on webpage.**

Reservations for rooms at the San Ramon Marriott can also be made by calling the hotel at (925) 867-9200. When calling, mention PACC to receive the PACIFICON rate.

### PACIFICON 2016 Events Include

(check our web site for updates):

- Outstanding Technical Forums
- Antenna Seminar
- Open MDARC Meeting
- Great Swap Meet
- Amateur Television (ATV)
- Ham Radio Gear on Exhibit
- One-Day Technician and General License Classes
- Ham License Exams
- Prize Drawings
- ARRL Forum
- Youth Events
- Kit Building
- Breakfast with Gordon West
- Evening Banquet
- Ham Instructor Academy
- Ham Radio 101/201 Seminar
- Parachute Mobile
- Wouff Hong Initiation
- Special Event Station W1AW/6

**Join us online at /pacificon.org**

# Board of Directors Meeting

**September 21, 2016 - 6:00 PM**

Washoe County Regional Emergency Operations Center
Board Room
5195 Spectrum Blvd, Reno

**DRAFT MINUTES - To Be Approved on October 18, 2016**

## 1. Call to order at 6:00 PM

| | | | | | |
|---|---|---|---|---|---|
| Anthony Marcin, W7XM | Yes | Barry Bettman, K6ST | Yes | Rob Dunbar, NB6C | Yes |
| Bill Jones, AE7OX | Yes | John Byerly, N7ROJ | No | Steve Johnson, KS6A | Yes |
| Jim Shepherd, W6US | Yes | | | | |

Visitors
Wes KG7QXE

## 2. Approval of Minutes

A. W6US moved to approve the minutes as amended from the August 17th Board of Directors meeting. The motion was seconded by KS6A and the motion passed.
B. NB6C moved to approve the September 21 agenda as presented. W6US seconded the motion and passed.

## 3. Reports

**A. President's Report** -
1. Reno Tahoe Hamfest is moving along great. Don Sherman of Ham and HiFi will lead vendors DX engineering has interest, buddy pole HRO slight maybe, Wes is heading raffles. Mike Katz is helping shepherd event. Looking for speakers such as Gorden West and K6UDA.

**B. Secretary Report**
a. Status Report, nothing to report at this time.
b. No update on changing club from Chapter 81 to Chapter 82. Clubs charter expires in 2018. W7XM has started and will hand off to Secretary.
c. Election nomination will be open for the month of as of yet no nominations.

**C. Membership Coordinator**
**a.** Membership Status Report – There are currently 298 Members and membership will fluctuate as members renew.

**D. Treasurer**
**a.** Balances as of September 21: Checking: $9,657 Savings: $3,242 PayPal: $1,018 Trust Fund: $10,099 a total of $24,016. Bank statements were handed out for everyone to review and confirm. Some money has been spent on post cards and raffle prizes.

**E. Technical Committee - Report**
a. Steve has the controller and is interfacing for Mt. Rose. Scheduling to get up to Mt. Rose before snow.
b. Quotes for equipment are on the Google drive.
c. N7ROJ will ask for a motion to purchase a IM panel and Duplexor when cost are put together.

**F. Control Operators / Trustee - Report**
**a.** No Report

**G. Events**

**a.** Ham Swap – Ready for this Saturday September 24.

**b.** Reno-Tahoe Hamfest – Discussed in president's report.

**H. Education Team**

**a.** Tech class to start November 1.

**I. Noon Net**

a. Status – Net running well but still looking for control operators.

**J. HF Team**

a. Status – Presenting HF101 at next breakfast meeting.

## 4. **New Business**

A. Holiday Party will be combined with December's breakfast meeting.

## 5. **Next Meeting**

A. October 18, 2016 - Wednesday at 6:00PM - Washoe Regional Emergency Operations Center

## 6. **Public Comments**

A. Open for Comments - No Public Comments

## 7. **Adjournment at NB6C 2nd by K6ST PM**